



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
11201 RENNER BOULEVARD
LENEXA, KS 66219

JAN 09 2013

OFFICE OF
THE REGIONAL ADMINISTRATOR

Mr. Chuck Gipp, Director
Iowa Department of Natural Resources
Wallace State Office Building
502 East 9th Street
Des Moines, Iowa 50319

Mr. Bill Northey, Secretary
Iowa Department of Agriculture and
Land Stewardship
Wallace State Office Building
502 East 9th Street
Des Moines, Iowa 50319

Dear Mr. Gipp and Mr. Northey:

The Environmental Protection Agency appreciates the opportunity to comment on the draft Iowa Nutrient Reduction Strategy released on November 19, 2012. The EPA commends the Iowa Department of Agriculture and Land Stewardship and the Iowa Department of Natural Resources for reaching this important milestone as Iowa moves to fulfill its Mississippi River/Gulf of Mexico Watershed Nutrient Task Force (Hypoxia Task Force) commitment to develop a nutrient reduction strategy. This agency notes appreciatively that the draft strategy, developed jointly by your agencies, embraces a specific, ambitious nutrient reduction target.

I applaud Iowa for engaging Iowa State University to conduct a scientific analysis of conservation practices and for evaluating wastewater treatment technologies for municipal and industrial dischargers as two key components of the draft nutrient reduction strategy. The EPA views the draft Iowa Nutrient Reduction Strategy as a great start to set in motion actions that will begin to yield measurable nutrient pollution reductions from point and nonpoint sources.

I am pleased to see that the draft strategy addresses elements in the EPA March 16, 2011, memorandum "Working in Partnership with States to Address Phosphorus and Nitrogen Pollution through Use of a Framework for State Nutrient Reductions." The framework envisions states working with stakeholders to achieve near and long-term reductions in nitrogen and phosphorus pollution in water bodies through a combination of reduction measures for nonpoint sources and strengthened permits for point sources while developing a schedule for numeric nutrient criteria implementation.



The EPA looks forward to working with IDALS and IDNR along with other stakeholders to develop detailed implementation plans for the draft nutrient reduction strategy. The comments below include recommendations for revision to the draft nutrient reduction strategy and specific points to be addressed in implementation plans.

Nonpoint Source Comments

- The EPA recommends integrating the Clean Water Act Section 319 nonpoint source program into the strategy, including the Iowa Nonpoint Source Management Program approved by EPA Region 7 in August 2012. The final version of the policy document should address how activities like watershed prioritization and measures of success, both of which are included in the NPSMP and the nutrient reduction strategy, will be coordinated to avoid duplication of effort and effectively utilize limited resources. The EPA is committed to partnering with IDNR and IDALS on coordinated implementation of the nutrient strategy and the NPSMP.
- The EPA believes the strategy could be even more effective if it examined how proven conservation systems could be targeted for use on the most vulnerable lands. There are a variety of tools, including several from the United States Department of Agriculture, available to determine optimum placement of best management practices. We recommend the strategy describe how BMP optimization will be established at the watershed and farm scale, including integration into existing Nine Element Watershed Plans developed under Iowa's NPSMP. There are a number of watersheds where local stakeholders have developed watershed plans at the HUC-12 scale that target the most effective practices in the watersheds. Are there opportunities to expedite nutrient reduction practices in these watersheds by focusing on already-identified priorities and evaluating whether additional BMPs for nutrient reduction are needed? Additional BMPs could be used in optimal locations to provide nutrient reduction and the most effective return on investment.
- The EPA recommends providing more detailed information to support the BMP effectiveness estimates, particularly where confidence intervals are broad.
- The strategy mentions that Iowa has restored 250,000 acres of wetlands, but does not mention the National Resources Conservation Service Wetlands Restoration Program. Monitoring of WRP sites has shown nitrogen reduction benefits that meet or exceed benefits from current Conservation Reserve Enhancement Program designed wetlands. The WRP sites also have habitat benefits. The strategy should more clearly explain how WRP wetlands fit into the overall nutrient reduction strategy plans in Iowa.
- The EPA recommends that Iowa describe how data from the Major Land Resource Area level assessment-such as nitrogen and phosphorus loads-will be translated to the watershed scale and ultimately field scale to determine BMP placement and effectiveness.
- The EPA recommends that the final version of the strategy address the contribution of phosphorus pollution from streambank erosion. When and how will data on streambank

erosion phosphorus contributions be developed? Is there an opportunity to review and utilize/adapt information from other sources, such as Minnesota presented at the Davenport workshop, to determine phosphorus contributions from streambank erosion?

- The draft strategy points out the significant potential of cover crops to reduce both nitrogen and phosphorus while also pointing out the estimated corn yield loss with rye cover crops. The strategy is silent on additional benefits, including economic benefits, to be gained by using cover crops. These benefits include increased water infiltration, minerals held in the soil, additional organic matter accumulation, and suppressed weed growth.

The EPA recommends Iowa consider several questions in framing its final strategy:

- The nonpoint source section of the draft strategy costs/benefits for each BMP focus on costs to the producers and, where benefits were identified, also focused solely on the producer. At the Davenport workshop, there was a recognition that the analysis of other benefits were not within the scope of the science assessment. Are there plans to analyze other benefits associated with BMPs?
- Were other programs/approaches, such as the USDA Soil Health Initiative and changes to Conservation Reserve Program, evaluated for nutrient reduction impacts?
- Was there modeling of perennial vegetation nutrient reduction benefits on marginal lands?

Point Source Comments

After meeting with IDNR staff to discuss the point source technology assessment section of the draft strategy, the EPA recommends the following clarifications:

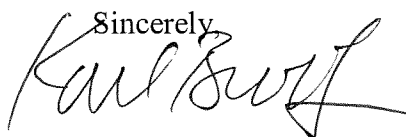
- Revise strategy language to clarify that schedules of compliance will not be used for meeting technology-based effluent limits.
- Unless impracticable within the meaning of 40 CFR 122.45(d), monthly and short-term permit limits, based upon annual limits, would be required in National Pollutant Discharge Elimination System permits.
- Clarification should be included that there may be exceptions to the 10-year moratorium where water-quality based nutrient effluent limits could be added to permits, per the regulations, if a Total Maximum Daily Load with nutrient wasteload allocations is established, or if nutrient criteria are promulgated by IDNR.
- Acknowledging the biological nutrient removal will achieve reductions in the nutrient levels discharged, the draft strategy calls for BNR feasibility studies to be conducted for major public owned treatment works. We recommend the strategy acknowledge that at some wastewater treatment facilities reductions in nutrients may be achieved through the use of other appropriate technology (when BNR is not possible).

General Comments

- While the draft strategy does address all framework elements the EPA has identified to maximize progress in reducing nutrient pollution, the section “*Numeric Nutrient Criteria Limitations*” does not reflect the EPA’s current thinking about numeric criteria development and implementation. The EPA views numeric criteria as important tools for effective water quality management of nutrient pollution. Many of the concerns with numeric nutrient criteria described in the strategy focus on the EPA ecoregional criteria published in 2000, which were intended to be a starting point for states and others to develop more refined criteria that fully reflect localized conditions and protect specific designated uses. We have made a lot of progress working with states and authorized tribes since the 2000 document was issued to identify a range of options available to them in developing and implementing numeric criteria. This agency is available to work with you on the scientific underpinnings of numeric criteria that would be appropriate for water bodies in Iowa and that represent best available science. Such approaches may include: derivation of numeric nutrient criteria using stressor-response approaches, use of mechanistic models currently used in TMDL development, and approaches that better link biological responses to numeric nutrient criteria assessment procedures.
- The Iowa draft strategy highlights the costs to dischargers of complying with nutrient standards but does not recognize the wide range of water quality standards and permitting implementation flexibilities the EPA has been exploring with states that have protective numeric criteria in place. These tools include site-specific criteria, revisions to designated uses, permit compliance schedules, water quality standards variances, and trading. Which regulatory tool is appropriate depends upon the circumstances.
- This agency is pleased to see that the accountability and verification measures and public reporting sections of the draft strategy outline a number of actions that meet the objectives of the March 2011 EPA memorandum. The final strategy should include a schedule for putting these actions in place.
- The draft strategy tasks the Water Resources Coordinating Council to develop indicators of success and annually evaluate the need for updates to the strategy. The EPA requests the opportunity to participate in the Water Resources Coordinating Council activities related to the nutrient reduction strategy.
- The strategy should explicitly establish how progress will be monitored/measured. For example, will measurements be applied to the quality of water leaving Iowa? We recommend evaluating existing data and measures from state and federal agencies to develop indicators of success. For example, since the NPSMP and nutrient reduction strategy goals are the same-improving water quality-there are opportunities for similar/same measures and joint reporting.
- The draft strategy is unclear where nutrient reductions will be measured and/or modeled as there are references to “edge of state” and “edge of watershed.” Please provide clarification about how and where nutrient reductions will be measured or quantified. (Is there an inventory of nutrients entering/leaving Iowa?)

- The draft strategy references operational plans. Are these operational plans for action items listed in the strategy? The strategy should include specific action steps, milestones and timelines for implementation of actions included in the strategy.

In conclusion, we appreciate the opportunity to comment on the draft Iowa Nutrient Reduction Strategy. The EPA looks forward to working collaboratively with IDALS and IDNR on implementation of the strategy to achieve our mutual goals of water quality improvement in Iowa. Any questions on these comments should be directed to Karen Flournoy at 913-551-7782 or flournoy.karen@epa.gov. We would be pleased to meet with IDALS and IDNR to discuss any questions you may have regarding these comments.

Sincerely,


Karl Brooks

cc: Nancy Stoner, Acting Assistant Administrator for Water, EPA HQ